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R E P L Y

TO

A L E T T E R

*IN THE MORNING CHRONICLE*

RELATIVE TO THE

INTEREST WHICH THE BRITISH GOVERNMENT  
EVINCES IN THE PROMOTION OF

ASTRONOMICAL SCIENCE.

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By JAMES SOUTH, Esq.

VICE-PRESIDENT OF THE ASTRONOMICAL SOCIETY OF LONDON,  
F.R.S. L. & E. ; M.R.I.A. ; F.L.S. ; H.M.C.U.P.S. ; M.R.I. ; &c. &c.

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LONDON:

PRINTED BY RICHARD TAYLOR, RED LION COURT, FLEET STREET.

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1829.



## ADVERTISEMENT.

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As it is probable that the following pages may fall into the hands of some unacquainted with the circumstance which occasioned the original publication of their contents in *The Morning Chronicle*, it may be necessary to premise that having detected Encke's Comet on the 30th of October last, I communicated the fact to the public, through the medium of *The Times* newspaper; and having subjoined some observations of it on the 3rd and 4th of November, that I dismissed the subject in the following words:—

“ To Encke we owe our gratitude for recognising it, as a periodical attendant of our system; and also to his industry do we owe the means whereby we are again enabled to detect its presence. For to the shame of the Astronomical Character of the British Government, no work published under its sanction would lead any one to suppose that such a comet was in existence. Indeed, as an Englishman, it pains me to state, that the interest which the Prussian Government takes in the promotion of Astronomical Science, is alone equalled by the al-

most barbarian indifference to it, which distinguishes our own.”—Vide *Times* of Nov. 7th.

To this an answer appeared in *The Morning Chronicle* of Nov. 17th, endeavouring to show, “That the Government did not deserve, in the instance alluded to, all the reproach which I had thrown upon it.” Unwilling, therefore, to be denounced as a Government calumniator, I reconsidered the data upon which I arrived at the conclusion complained of, and presented them to the public through the same Journal in which the accusation appeared against me. How far I convinced my anonymous accuser that I wrote not unadvisedly, when I attributed “to the British Government almost barbarian indifference to Astronomical Science,” his silence does not enable me to judge: be that, however, as it may, it has been truly gratifying to me to know, that my defence has been well received by the first Astronomers and Navigators of my country; and it is at their request that I now republish it in pamphlet form.

JAMES SOUTH.

Observatory, Kensington,  
Jan. 20, 1829.

# R E P L Y,

&c.

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*To the Editor of THE MORNING CHRONICLE.*

Sir,

YOUR Paper of Monday, the 17th instant, contains an article in reply to a communication which I made as to the re-appearance of Encke's Comet, on the 30th ultimo, and which was published in *The Times* of Nov. 7th. The author pronounces my "concluding paragraph, a querulous one;" and adds, "Without thinking that the British Government does all that it ought to do for science, we are not of opinion that it deserves all the reproach which Mr. South has thrown upon it."

Now, Sir, this perhaps might have led to a very desultory paper warfare, had not my accuser imprudently disclosed the data from which he has drawn his inferences. A few facts to which he has not alluded, together with an inquiry into the statements he has published, will convince him, I doubt not, that he has censured me without foundation.

He says, first, "There is an Astronomer Royal, with a handsome salary, and five or six assistants, in the Greenwich Observatory; and if that establishment



has not produced all the benefit that has been expected from it, the blame rests elsewhere than with the Government." Now, if the writer of the article will re-peruse my letter to *The Times*, he will not find one word implying, directly or indirectly, any censure of the Royal Observatory : if, however, he mean to insinuate, that it is the province of the Astronomer Royal and his assistants to compute Ephemerides, he is lamentably deficient in knowledge of what are their proper employments. He seems not to know that the superintending and editing of the Nautical Almanac, and Astronomical Ephemeris, is by official authority confided to Dr. Thomas Young ; and that, except for the accuracy of the mean places of the principal fixed stars (called *κατ' ἐξοχην*, THE GREENWICH CATALOGUE) employed in the calculations, the Astronomer Royal is no more responsible for what is or what is not in the Nautical Almanac, than are the Secretaries of the Admiralty, under whom he acts. As to the assertion of a " handsome salary being received by the Astronomer Royal," it is probably full as much as the writer would give ; although probably not quite so much as, were he in the Astronomer Royal's place, he would himself like to receive ; when, on looking around him, he saw even clerks in every Government office, his inferiors in education and scientific acquirements, receiving of the public money, quarterly, more than he touches annually. The writer will excuse me when I say, that I envy not the generous feeling of any one, be he who he may, who can designate 600*l.* a year, and a little

hovel to live in, with no retiring pension, no provision for an unprovided widow, as a handsome salary for the Astronomer Royal of Great Britain. It is a niggardly provision, and justifiable only on the grounds, that were it larger it would more likely be bartered for Parliamentary Interest than be given, as it hitherto has been, to distinguished merit.

But there are “ five or six assistants in addition to the Astronomer Royal.” True, there are six; two of them have been for many years employed at the Observatory, and have salaries upon which they can subsist; but as to the last four, will the writer who reminds me of them allow me to inform him, that such is the generosity of the British Government, that they are almost starving, notwithstanding the strong and reiterated remonstrances of the visitors of the Royal Observatory, and of the President and Council of the Royal Society?—So much for the first of my antagonist’s facts.

Come we now to the second, which informs us that the “ British Government has established an Observatory at the Cape of Good Hope, and that it has furnished it with the best instruments that British ingenuity can construct.” This, indeed, sounds well; let us see, therefore, if on investigation it will tell well. Seven years have now elapsed since the Rev. Mr. Fallows left Europe, as Director of the Cape Observatory; I know him well: than he, no man is more capable—no one more eager to discharge the duties of his important trust. He left the shores of England with every promise of support, and under a feeling which I know operated

powerfully, I might almost say principally, in inducing him to accept the situation; namely, the almost absolute certainty that an imperishable name was shortly within his grasp. What the immortal Herschel had done for the astronomy of the Northern hemisphere, he fondly anticipated to do for that of the Southern. What, then, must be his disappointment, to see himself anticipated by energetic labours, produced from the private Observatory of Sir Thomas Brisbane? Nor does the mortification rest here; the assistant of Sir Thomas, the hard-working Dunlop, himself, becomes a competitor with the ill-used Cape Astronomer; and, although leaving the Colony in disgust, brings away with him, as the produce of his own resources, a splendid series of observations, which must insure to him no small portion of respect from astronomers yet unborn. But the Cape Astronomical Establishment has cost the country, as may be seen by various Parliamentary documents, upwards of 20,000*l.* sterling. *Cui bono?* I would ask;—why, to afford Englishmen the enviable happiness of feeling, that, owing to the scientific energy of the British Government, for any Observations which have hitherto been transmitted to Europe by the Cape Astronomer, the Cape Astronomer might as well have remained at home.

But we are informed “that the British Government has taken upon itself the support of the Observatory established at Paramatta, in New South Wales, by its late Governor, Sir Thomas Brisbane.” This, however, is incorrect, as appears by the fol-



lowing official letter, addressed to Davies Gilbert, Esq. :—

*Downing Street, Oct. 4, 1828.*

“ My dear Sir,

“ Some doubt is entertained by some members of the Government, whether it is necessary to incur the expense of two Observatories—one at the Cape, and another at New South Wales. Will you have the goodness to refer to the Resolution, and other proceedings of the Royal Society upon this subject, and tell me whether, in the Society’s opinion, a single Observatory can be made sufficient; and if so, whether it should be established at the Cape or at New South Wales, the latitudes of which are not very different?—Believe me, my dear Sir, very faithfully yours,

“ HORACE TWISS.”

Now, if words have their usual meaning, it would seem, so far from the Government having taken upon itself the support of Sir Thomas Brisbane’s Observatory, that their thoughts are seriously occupied in finding an excuse for not having any thing to do, except with one; and it is really amusing to see, that it is not yet determined by the Government whether the Cape Observatory, which has cost the country upwards of 20,000*l.*, is established or not. If this be not ignorance of what is done and what is not done—and if it do not show indifference almost barbarian to the interests of Astronomy, we must look to the Cossacks\* in Paris for that which will.

\* After the battle of Montmartre, these Astronomical *Enthusiasts* visited the Observatory of the Ecole Militaire, they battered up the moveable instruments and sold them for tobacco; whilst with the object glasses, the Astronomer’s library and manuscripts, they lighted their pipes. And but for the timely arrival of Duke Constantine, for which Science stands indebted to Mons. Bouvard, Bird’s mural quadrant, and every thing else, convertible into money, would have been carried off.

The next sentiment which your Anonymous Correspondent advances, in order to show that the British Government “does not deserve all the reproach which I have thrown upon it,” is, “That the Trigonometrical Survey of the British Islands, a labour most intimately connected with the improvement of Astronomy, has been carried on at the expense of the State, for a great number of years, and that there is no reason to suppose it will languish until its final accomplishment.” Here again investigation is necessary; and the result will show, that there is every reason to believe that this work, (“so intimately connected with the improvement of Astronomy,”) which was begun by the celebrated General Roy, in 1783, under the auspices as well as personal inspection of our late revered and beloved Monarch, and which has been in progress nearly half a century, is, from the scanty funds now appropriated to it, in a predicament almost approaching to abandonment. Indeed, if report speak truth, the Trigonometrical Survey owes its existence, at the present moment, to the fortunate vote of one member *not* of his Majesty’s Government, and the equally fortunate absence of another member of his Majesty’s Government, in a Committee of British Legislators, in which it was gravely asked, “whether, as the expense of continuing the Survey upon its present large scale was so enormous, a small one could not be made, which, by pentagraphic aid, might afterwards be converted into a large one?” If also report be worthy of belief, at this very time a clamour is being raised against the indefatigable conductor of the Irish Survey, in order,



as it is said, to cause him to give up his appointment in disgust: every man, however, who knows the care, the toil, and the talent which that distinguished individual\* has displayed, in measuring upon Irish ground, beyond all comparison, the most perfect base line which human ingenuity has yet produced, will join me in conjuring him to retain a post, the important duties of which, no man is more competent, no one more likely to discharge with honour to the country, than himself. I would address the same exhortation to the distinguished officers† acting with him; let them but go on as they have begun, and posterity will pronounce their names with respect, while time alone will disconnect their calumniators with contempt.

But further, to prove the inaccuracy of the character which I have given to the Government, we are next informed, that “His Majesty King George the Fourth has generously presented two thousand pounds to the Edinburgh Astronomical Institution, for the purpose of furnishing their Observatory with instruments.” On looking over my communication to *The Times*, I have neither directly nor indirectly said, or insinuated, that any indifference to the scientific character of the country, was ever on any occasion manifested by our excellent Sovereign: why, therefore, his Royal munificence should be brought forward, to wipe away disgrace from his Ministers, which they alone are accused of deserving, I cannot possibly imagine. As, however, His Majesty’s liberality has been alluded to, let us

\* Col. Colby.      † Captains Pringle, Drummond, Murphy, &c.

see how far it can be used for his Ministers' benefit. Is it too much to suppose? nay, is it not natural to conclude, that those who have ready and constant access to their Royal Master, were informed of this his Royal determination? If so, was it not their duty to see what steps were necessary, in order that the sum thus generously designed by our beloved Monarch for the promotion of astronomical science, should be rendered permanently useful? Not astronomers themselves, did they ask the Royal Society, or any other equally competent body, how their Sovereign's bounty could be most effectually secured against abuse or disuse? No such thing. The money has been given unconditionally, except so far, that it must be expended in astronomical instruments\*. But it may be said, and very probably was imagined by the Government, that nothing more was necessary, than the mere placing the instruments on their respective piers: as well might they have supposed that desks, pens, ink and paper, would make Cabinet Ministers, as that astronomical instruments would *per se* produce astronomical observations. Had their Royal Master been advised by those about him, as he would have been, had a Brouncker, a Macclesfield, or a Newton had access to his Royal ear, something of

\* Awkward reports are afloat, that even this condition has not been exacted; or if exacted, that it has been most flagrantly violated. Is it possible that one half of "His Majesty's Two Thousand Pounds generously presented by Him to the Edinburgh Astronomical Institution, for the purpose of furnishing their Observatory with *instruments*," can have found its way into the pockets of the gardener, the ground leveller, and the wall-builder?



this sort would have been stipulated, ere one stiver was suffered to quit the Royal purse.

“His most Excellent Majesty having the interests of Astronomy much at heart, and having seen that his good people of Edinburgh have built an Observatory to the north-east of their smoky town; and upon a hill, whose height and proximity to the sea render it liable to very serious objections; and being desirous that the disgrace which their astronomical character has sustained in divers instances, more particularly on a recent occasion, when a Russian fleet anchoring at Leith could not obtain the time sufficiently accurate for determining the errors of their ship-chronometers; has resolved to present to the Astronomical Institution of Edinburgh, the sum of 2000*l.*, to be laid out in the purchase of Astronomical Instruments; but that His Majesty may feel every reasonable confidence, that the instruments thus provided, by his Royal bounty, shall be regularly and permanently used, for the advancement of Astronomical Science, His Majesty requires that the Observatory in which his instruments are to be erected, shall be situated to the South-West\* of the town; That it shall be placed on sufficiently high†

\* The finest weather for making astronomical observations (generally speaking) is, when the wind is in the South, or South-West; whilst the most unfavourable is, when the wind is East, or North-East; the former are also in this climate the most prevalent; hence, a station to the North-East of a large and populous city, ought, for astronomical purposes, to be avoided.

† By far the best mode of ascertaining the horizontal point of the Mural or Transit Circle is, that proposed, some thirty years ago, by my revered friend, Mr. Troughton, in his celebrated dis-

ground, to command a tolerably extensive horizon, particularly in the direction of the meridian—that access to it, or egress from it, at all hours, shall not endanger personal safety\*—that a house or houses be built immediately adjoining it†, as the constant residences of the Astronomer and his assistants—that an Astronomer and two assistants be attached to it, and that one of them be always at the Observatory—that the right ascensions and polar distances of the principal fixed stars, and of all the planets, be regularly observed—that the eclipses of Jupiter's satellites, and of the Sun, be constantly attended to—that the occultations of the stars and planets by the Moon, be never neglected; and that such stars also as come to the meridian, a

cussion, with the Council of the Royal Society, on the superiority of the Mural Circle over Circles moving in Azimuth; and having the means of detecting their own error of collimation, by reversion. It is most successfully practised at Greenwich, and is simply a comparison of altitudes of Stars, obtained by direct vision, with those procured, by observing their images, as reflected from the surface of mercury; for this purpose, however, the mercury must be nearly quiescent; considering, therefore, how extremely mobile among each other, are the particles of this metal, and that the slightest wind ripples it, every station intended for an observatory should be no more exposed to the wind than can possibly be avoided. Hence the height of the Calton-hill, and its proximity to the sea, do not point it out as a station to be coveted.

\* The Calton-hill, where the Observatory now stands, is not the most safe place to mount after dusk, and is scarcely ever visited at night, but by people of loose character.

† If the Observers have any distance to walk from their homes to their work, many an Observation will be lost, which, if they reside on the spot, will be procured.

little before, or a little after the Moon, and are but a few degrees from her parallel of declination, must have their right ascensions relatively to the Moon, assiduously determined. The Observations must be regularly reduced, and must be published within twelve months after they have been made; the originals, being carefully preserved, must be open to the inspection of every astronomical inquirer (if properly introduced) at convenient seasons. The Astronomer and his assistants must be paid, their Observations printed, and the Observatory maintained, at the expense of the Astronomical Institution, and guaranteed by the Municipal Authorities. And in case any one of these conditions should be infringed, then, and in that case, such instruments shall be removed at the sole cost and expense of such Astronomical Institution, or such Municipal Authorities, to such place, or to such person, as may seem conformable to his Majesty's Royal will and pleasure."

But some will say, The very act of building an Observatory, is sufficient earnest that the instruments will be used with energy. To those who so persuade themselves, I would recommend a visit to Glasgow, and they will there find a practical illustration to the contrary. Knowing this, and also that the expenses of printing Observations, and of paying an Astronomer and his assistants, are not only considerable but constant, and remembering, that even at the Royal Observatory at Greenwich, the assistants are so inadequately paid (notwithstanding remonstrance upon remonstrance, trans-



mitted to the Admiralty\*, by the visitors of the Royal Observatory, and by the President and Council of the Royal Society), that they can scarcely keep body and soul together; I cannot anticipate that such expenses, as will be inseparable from the active employment of the instruments about to be presented by our excellent Sovereign to the Astronomical Institution of Edinburgh, will be for any length of time voluntarily submitted to, by those whose astronomical ardour built an Observatory, and suffered it to remain without instruments, an object of foreign and domestic ridicule, till Royal commiseration was extended to it. Practical astronomy, I regret to say, does not seem a favourite pursuit with our Scottish friends; or one of their Observatories which contains instruments, would not be without an Observer—another which did contain instruments of no common order, would not be the domicile of a laundress; nor would a third, which once boasted of instruments and of a good Observer also, now furnish nothing else (as report says) than a shelter for a skeleton maker!!!

After a long-winded, but unfinished reference to the Nautical Almanac, your Anonymous Correspondent waddles out of his road, to tell us, that “the State does not appoint the Astronomical Observers of Oxford and Cambridge.” What

\* Seeing nothing can be done with the Admiralty, why do not the President and Council apply at once for redress to the First Lord of the Treasury? Let His Grace the Duke of Wellington be convinced that the Society has no job in hand, and his good sense will refuse them nothing which it ought to grant.



is the object of this piece of information? I have not said one word about either of these Observers, or of their Observatories: perhaps, however, the writer thinks, if it be proved that the task of computing Ephemerides rests not with the Observers of Greenwich, it must of necessity lie with those of Oxford and Cambridge. With these Observers I have nothing to do; they receive none of the public money as Observers at their respective Universities: it would, however, be grateful to every well-wisher to Astronomy, if the Radcliffe Observer of Oxford were furnished with a Mural Circle, in lieu of his Mural Quadrant; and if the Observations made at Oxford were reduced and printed. The Radcliffe Trustees, I have no doubt, would, if the matter were properly represented to them, soon place their Observer upon a footing more agreeable to himself, more honourable to the University, and more consonant with Radcliffe's wishes.

The writer then says, "The Royal Society, we believe, has great influence, if not the sole appointment of the Astronomer Royal." Now, what this has to do with the matter, I know not. If the writer mean, however, to say, that the Royal Society has great influence, which it does not always employ, for the furtherance of astronomical knowledge, few will probably be found to differ with him; but if he mean to imply that the Society had great influence (in) if not the sole appointment of the Astronomer Royal, and that that influence was not exercised in the best possible manner, when it recommended to His

Majesty (then Prince Regent), to nominate the present Astronomer Royal, we are as widely at issue as possible; and I challenge him, to name me one man, at that time, in His Majesty's dominions, who had more claim to the vacant post, than he, whose Observations at Westbury, made with his own instrument, and at his own expense, without any Government aid, or subsequent gratuity (for this has of late come into fashion), demonstrated what foreign astronomers had long suspected, but could not prove, namely, that an alteration of figure had impaired the accuracy of the Greenwich Mural Quadrant. Ill health, disinclination, or perhaps inability, to mix in the instructive eating and drinking parties of the Society, and a determination to resist an Admiralty scheme (of providing gentlemen Observers with salaries of 400*l.* or 500*l.* a year), which, in his opinion, if carried into effect, would have destroyed the practical utility of the Observatory, has, among a certain set, and in certain quarters, perhaps rendered him somewhat unpopular; he has, however, the satisfaction of knowing, that he has averted from our Observatory, a calamity similar to that of which the Observatory of a neighbouring country has long felt the curse.

We have now done with all my opponent's facts, except those founded on the Nautical Almanac. Connecting together all that is written upon this subject, we have as follows: "Some, we know, are of opinion that our Nautical Almanac is not so copious as Continental publications of a like nature. The practical Astronomer requires certain

data for facilitating his observations. These are computed with considerable expense of time from astronomical tables; and the required numbers are pretty nearly the same for all countries: thus the labour of one person may be made available to all the astronomers of Europe, if published a year or two in advance, so as to admit of being circulated. The British Nautical Almanac, as far as it goes, gives most important aid: complaints are, however, made that we do not yield to the tide of improvement, but remain stationary; while the Continental Astronomers are rapidly advancing in everything that concerns the science, and particularly in the construction of tables and ephemerides. There is certainly some truth in this; but ought not the blame to be imputed to individuals rather than to the Government? Let this most respectable Body (the Royal Society) and the Astronomical Society of London unite, in suggesting the required improvements of the Nautical Almanac, and we have little doubt but that means will be furnished by the State to enable these Bodies to give the Almanac the most approved form."

Now as to the Nautical Almanac, my sentiments have long been before the public; seeing that in the spring of 1822, they were contained in a pamphlet, entitled "Practical Observations on the Nautical Almanac and Astronomical Ephemeris\*." In that little work, I showed—That the Almanac

\* Having a few copies by me, I shall be happy to furnish any gentleman with one, on his transmitting me his address. As also copy of this pamphlet, to any Member of either House of Parliament.



was intended for Astronomical, as well as for Nautical purposes—That the Sun's Right Ascension was erroneously predicted—That the advertised celestial phænomena were not half so numerous as those contained in the first Number of the Almanac published in the year 1767, nor as in those published by the old Board of Longitude prior to Dr. Maskelyne's death—That the configurations of Jupiter's Satellites were scarcely ever correct—That the Eclipses of Jupiter's Satellites were computed in a manner the most disgraceful; being seventeen times more inaccurate than the corresponding calculations of them in the French Nautical Almanac; and one hundred and twenty-six times more inaccurate than were the observations themselves—That Eclipses were pronounced visible, which were invisible; while others, which were declared to be invisible, were visible—That one page of the Almanac asserted a Satellite to be invisible, whilst another page assured us it was visible—That the place of the Moon's Node was erroneously calculated, in every instance—That not a single calculated occultation of a single fixed star by the Moon could be found in the book, although the Almanac, in its pages 162 and 163, not only informed us that such calculations were there, but even urged travellers and mariners particularly to observe them, under an assurance "that such occultations, if carefully observed, would afford a certain means of determining their longitude." I complained that each Almanac did not contain a list of its own errata; adding, that a seaman who purchases one volume, ought not to be obliged to buy another to set all



its blunders to rights. I compared the Nautical Almanac with various foreign Ephemerides, and proved by evidence, the most incontrovertible, that it was vastly inferior to them; and showed, beyond all possibility of doubt, that before we could assign to it its “pristine excellence,” some improvement of it was indispensable.

Whilst exposing in no unfriendly manner the various errors which my own instruments had enabled me to detect, and which I stated “myself ready to substantiate whensoever and wheresoever I was called upon;” I pointed out *en passant*, certain alterations, which had they been adopted in future Nautical Almanacs, would, I thought, prove beneficial. For any good, however, which these suggestions have done, they might as well never have been proposed; coming neither from one of the Board of Longitude, nor from one of their *employés*, belonging not to the class *conundra*, but having for their object the improvement of Astronomy, Geography, and Navigation, they were deemed unworthy to be listened to by those who were pocketing 1300*l.* a year of the public money, under pretext of being the encouragers of astronomical, geographical, and nautical science. But some will say, the alterations which I proposed were nothing but useless innovations; and that the Board was therefore right in turning a deaf ear to them. Fortunately, to set this point at rest, an Astronomical Ephemeris has issued from the Prussian metropolis, which for the comprehensive manner in which it exhibits all the information

wanted in our Observatories, is (*communi consensu*) pronounced as superior to all other foreign Ephemerides, as these last are to the English Nautical Almanac; it is needless to say, I allude to Encke's Berlin Ephemeris for 1830. Let us, therefore, see how far the suggestions uselessly offered to the consideration of the British Board of Longitude by me seven years ago, are adopted by this celebrated promoter of Astronomical Investigation.

I proposed that the Sun's Right Ascension should be given to hundredths of seconds\*;—Encke has done so. I stated that the discordance between the Sun's predicted and observed Right Ascensions merited investigation†;—Encke has not only thought so, but has made it; and presented us with his results. I suggested, that the Sun's Declination should be given to tenths of seconds‡;—Encke has done so. I proposed that the Equation of Time should be given to hundredths of seconds§;—Encke has not only done this, but has applied it, with its proper sign, to Zero hours. I stated that the time of the Sun's semidiameter, passing the meridian, should be given more frequently; and certainly to the second place of decimals||;—Encke has done so. I stated, as to the planets Mercury, Venus, Mars, Jupiter, Saturn, and the Georgian, that it was surely to be regretted that their declinations and right ascensions are not given to seconds, and that too, more fre-

\* Vide Practical Observations on the Nautical Almanac, p. 12.

† Ibid. p. 15.

§ Ibid. p. 16.

‡ Ibid. p. 12.

|| Ibid. p. 16.

quently\*;—Encke has done more; for he has given them not only more frequently, but presents us with their right ascensions to hundredths, and their declinations to tenths of seconds. I stated, that it was difficult to divine why the places of Ceres, Pallas, Juno, and Vesta were not inserted†;—Encke has given their places, not only approximately, but to hundredths of seconds in right ascension; and to tenths, in declination. I asserted, that the Moon's right ascension in sidereal time, when on the meridian of the place of observation, and also her declination, for that instant, should be given to seconds‡;—Encke has done so. I proposed, that unless more accurate configurations of Jupiter's satellites were introduced than those which occupied no less than twelve pages of the Almanac, the sooner they were discontinued the better§;—Encke has omitted the configurations, but has given a table, whereby those who want them may compute them with the greatest accuracy. I stated, that all visible occultations by the Moon, of Stars not less than the sixth magnitude, should be computed in the Almanac ||;—Encke has done more; for he has extended his calculations to those of the seventh. Hence then we see that every proposition offered by me to the British Board of Longitude, seven years ago, not one of which that learned Body accepted, have since been adopted by the Illustrious Encke;—I leave the inferences to the public.

\* Vide Practical Observations on the Nautical Almanac, p. 30.

† Ibid. p. 31.

‡ Ibid. p. 32.

§ Ibid. p. 36.

|| Ibid. p. 11.



But a question now arises. As the Nautical Almanac is so shamefully deficient in useful matter, is it accurate “as far as it goes?” To this, I unhesitatingly say no. In a letter signed\* F.R.S., and which appeared in *The Times* of May 8th, I exposed the inaccuracies and absurdities which pervaded it, relative to the visible invisible, and the invisible visible eclipses of Jupiter’s satellites. I showed, that a satellite, in the opinion of the Board of Longitude, could be visible and invisible at one and the same time. I held up to astronomical obloquy, the carelessness which could publish visible immersions of the first satellite, after the planet had reached its opposition. I pointed out to the Learned Board the situation of the shadow of the planet relatively to the Sun; and I informed the Board, that the polar and equatorial diameters † of Jupiter were unequal.—Other provocatives of ridicule might have been dilated upon, such as the doubts which the Learned Body seemed to have, whether the present year 1828 was or was not Leap Year; the laughable alternative which they have, in their collective wisdom, adopted, namely, to declare it Leap Year at the beginning of the book, but to deny it such a privilege at the end; that in lieu of the title “true” apparent places of sixty principal fixed stars,

\* Although this letter did not bear my signature, my address, as the author of it, was given to the Editor, and was also left at *The Times* office with Mr. Chater, with a request that it might be given to any one who asked for it.

† The Admiralty’s Superintendent of the Nautical Almanac has in the Supplement for 1829 taken his revenge of me, by omitting the apparent diameters of the planets altogether!!



false apparent places would have been, probably, more appropriate; that the Sun's right ascension (notwithstanding the *savans* of the Admiralty, through their Superintendent of the Nautical Almanac, Dr. Thomas Young, assure us that the tables of the Sun are sufficiently accurate for every purpose of practical astronomy) is erroneous, only 366 days in the year; and oftentimes as on this very day, by a quantity equal to fifteen seconds; in short, conferring on our mean time clocks about sufficient accuracy whereby to ring our dinner bells. That as yet, the *Astronomes* of the Admiralty have not satisfied themselves whether the tables of the planet Jupiter are sufficiently accurate to authorise in their ever accurate Almanac, the insertion of the Moon's distances from the planet, although the late Board of Longitude, of which they were all hard-working members, expected that point to be shortly determined, no longer than nine years ago \* !!! And that not one calculated occulta-

\* Ever since 1822 the lunar distances of Venus, Mars, Jupiter, and Saturn, have been published by the Danish Board of Longitude! Their ephemerides also have been printed by the same respectable Board; and with very considerable benefit has the Danish Navy, during the last six years, used both the one and the other. But as a set-off against this culpable, and I might almost add, criminal neglect, on the part of the British Board, the Supplement for 1829, gives us the means of finding the apparent diameters of each of the principal planets, which the navigator may have occasion to employ in the determination of his longitude by their observed distances from the moon, should that method be found sufficiently exact to be relied upon. Thus, the Superintendent gives the elements for finding the diameters of the principal planets for one year, and leaves us to suppose,

tion\* of a single star, throughout the year, can be found in the book, although we are told we shall

as probably he does himself, that they will hold good for any future year, or at least for that year, when, in his wisdom, he may think proper to give their lunar distances or ephemerides. From the same paragraph we may collect, that the lunar distances of Mercury will be some time or other probably presented to the seaman for the determination of his longitude at sea. Far be it from me to throw cold water upon any scheme, in the least likely to add to the safety of our ships, or of our brave seamen: with all becoming deference, however, to their Lordships of the Admiralty, I would remind them, that Mercury is not visible to the naked eye, whilst the sun is above the horizon: that he recedes so little from the Sun, that even his greatest angular distance does not exceed twenty-nine degrees; consequently, he is always entangled in the vapours of the horizon: hence, therefore, his lunar distances, practically considered, will be hardly worth computing. But that the Georgium Sidus, a planet invisible to the naked eye, whose *petitesse* caused it to escape detection as a planet by Maskelyne's Transit Instrument, and whose apparent diameter is a mere point in nautical instruments, should be hinted at for lunar distances whereby to determine the longitude at sea; Oh, ignorance! "Quousque tandem abutêre patientia nostra?" That such contemptible trash should be published "by order of the Board of Admiralty," is in the highest degree a subject for melancholy reflection. Great Britain, as a scientific nation, ought not to be the LAUGHING-STOCK OF EUROPE.

\* I understand the Admiralty's Superintendent of the Nautical Almanac, is at the present time fishing among nautical men, to find excuses for not publishing the calculated occultation of the Fixed Stars by the Moon; I know he has applied to two or three intelligent officers, who have never observed them: lest, however, his inquiries should lead him to a wrong conclusion, (which I am sure no one will regret so much as himself,) I herewith inform him, that Captain Beaufort has observed them. I will also tell him, that it is no *new* discovery; the fact was well known to, and was practised by the immortal Halley, no less than one hundred and forty-six years ago; for in 1683 and 1684, he

find them in the first page of every month, as they should happen at Greenwich, by the tables. There are indeed, of the Superintendent's own, twelve pages

printed in an Appendix to Mr. Street's Caroline Tables, as follows :

“ The advantages of the art of finding the Longitude at sea, are too evident to need any arguments to prove them. And having by my own experience found the impracticability of other methods for that purpose, but that derived from a perfect knowledge of the Moon's motion, I was ambitious, if possible, to overcome the difficulties that attend the discovery thereof.

“ And first I had found it only needed a little practice to be able to manage a five or six foot telescope, *capable of showing the appulses or occultations of the fixed stars* by the Moon, on ship-board, in moderate weather, especially in the first and last quarters of the Moon's age, when her weaker light does not so much affect that of the stars.

“ Now the motion of the Moon being so swift, as to afford us scarce ever less than two minutes for each degree of longitude, and sometimes two and a half; it is evident that were we able perfectly to predict the true time of the appulse, or occultation of a fixed star in any known meridian, we might, by comparing therewith the time observed on board a ship at sea, conclude safely how much the ship is to the eastward or westward of the meridian of calculus.”

The subject is then gone into, with considerable minuteness, and I regret that the limits of this pamphlet will not allow me to transcribe more, than from the historical part of it, the following. “ On Mr. Flamsteed's decease, about the beginning of the year 1720, His late Majesty King George I. was graciously pleased to bestow upon me the agreeable post of his *Astronomical Observer*, expressly commanding me *to apply myself with the utmost care and diligence to the rectifying the Tables of the Motions of the Heavens, and the places of the fixed stars, in order to find out the so much desired Longitude at Sea, for the perfecting the Art of Navigation.* These are the words of my *Commission.*” —Vide Halley's paper: Phil. Trans. Vol. xxxvii. No. 421.



of *hors-d'œuvres*, considered probably by him as an improvement upon actually calculated occultations; they are, however (as I predicted they would be)\*, so little, if at all used, and are so little known, that a highly-gifted Member† of the late Board of Longitude, in my observatory, offered to bet a handsome wager that no such materials existed: indeed the *tout ensemble* is to practical Astronomers actively employed, nothing else than a galimaufry of rubbish; and the sooner it is swept away the better‡. It is true, the apparent places of

\* Vide Practical Observations, p. 7.

† The late Dr. Wollaston.

‡ This may appear a harsh sentence: to show, therefore, that it is just, let us refer to these pages of Luno-Sidereal intelligence for the present year; and we shall find that Stars are frequently undergoing occultation by the Moon, without their advertising us of it, and that occultations are pronounced visible which are invisible. As an instance of the former, the occultation of  $\lambda$  Geminorum, by the Moon, on Sunday last, although the star was eclipsed by the Moon nearly one hour, is unnoticed; nay more, the apparent conjunction of the Star with the Moon is not even hinted at. Indeed, had we no other data than these pages would afford, we might safely infer that the Moon, throughout the year, took a monthly *leap* over the constellation Gemini. Again; Aldebaran, the most interesting Star in the heavens, as far as the Moon is concerned, will, according to these truth-telling pages, undergo a visible occultation by the Moon in April, although the Moon will not come within five minutes of it. In July also, we are to look out for another visible occultation, at a time when both Moon and Star will be below the horizon. Blunders which even our two-penny-half-penny Almanacs have avoided. Thus the *Temporis Calendarium*, or an Almanac on a New Construction, by William Rogerson, of Greenwich, corrects the Nautical Almanac. The Ladies' Diary, designed for the use and diversion of the Fair Sex, corrects the Nautical Almanac. The *Merlinus Liberatus*,

sixty principal stars are given now for every ten days of the year (and, as I believe), in consequence of a paper previously published by me, in the *Annals of Philosophy*, and of which copies were carefully transmitted to every Member of the Board. These apparent places, however, are liable to objection; the nature of which will be easily understood, when I state, that they are derived from a hodge-podge of formulæ adopted by the Board, and for which that learned and industrious body are indebted to Dr. Maskelyne, Dr. Pearson, Mr. Groombridge, and Mr. Baily. But another hint that I gave, that each Nautical Almanac should contain a list of its own errata, is still disregarded. In the

by John Partridge, teacher of the Occult Sciences, corrects the Nautical Almanac. The Englishman's Almanac, or Daily Calendar of General Information, corrects the Nautical Almanac. The *Cœlestial Atlas*, by Robert White, Gentleman, teacher of the Mathematics, corrects the Nautical Almanac. And so does the *Vox Stellarum*, a work familiar to every old woman in the country, under the name of MOORE'S ALMANAC!!! But if this be not enough, refer to the Nautical Almanac for next year, and see it there unblushingly avowed, that the "ELEMENTS OF OCCULTATION OF NO LESS THAN FOUR STARS are actually UNFIT FOR USE." Not as far as concerns the *current year only*, but that they have spread their poisonous principles in more than 500 instances through the PRECEDING SIX.

Two hundred of these errors, with a pick-nick of twenty-nine others, distinguish the Almanac of the present year: if, therefore, we compare the *responsible* Superintendent's accuracy in 1829, with the *irresponsible* Comparer's accuracy in 1818, we shall find the latter is to the former, as four to one. Hence, by leaving the Comparer, to go to the Superintendent, we have indeed, to use an old, but appropriate proverb, jumped out of the frying-pan into the fire!! Jan. 20, 1829.

volume for 1823, two errors were advertised; whilst that of 1824 (as I then stated) added thirteen to the list, making therefore a total of fifteen errors. The Almanac for 1830 contains no notice of a single erratum; but 1831 tells us of twenty-one acknowledged errors, contained in every copy of it; and of fifty-eight\* in some of the first copies. When, however, the volume for 1832 comes out, as the list is hardly long enough, some few additional ones, the

\* It is very remarkable, and one would have thought *might* have been instructive, that this is exactly the number of errors for which Mr. Croker denounced the volume for 1818, in his speech to the House of Commons, of which the following is an extract, as reported in *The Courier* of March 7, 1818:—

Mr. Croker, in moving for leave to bring in a Bill for the Establishment of the late Board of Longitude, thus addressed the house:—"Using a poetical expression, 'So wide is Art, so narrow human view;' he might say, that so long despaired-of object of scientific research, the Longitude, was now discovered—within so small a fraction had the computations been carried, that for practical purposes it was discovered."

Referring to the Nautical Almanac, he then proceeded:—"Dr. Maskelyne in 1767 commenced the Nautical Almanac. Through the whole of his life, it was conducted with great accuracy, and the entire approbation of all interested in the publication. But he had looked through it lately, and was sorry to say, that faultless as it had been, it did not of late maintain its character. In the work for the present year, there were no less than eighteen errors relating to the places of the Sun and Moon, and the computations in a flying sheet at the end of the work; and in a second edition of the same, no less than forty. He would not do his duty, or act in a way becoming of himself, not to state that the Nautical Almanac was now a by-word among literary men. The truth was, the errors were typographical, not scientific: he mentioned this to exculpate the literary men connected with the work. They were professional men, having other important avocations; and it could not be expected that they could



property of the said volume for 1830, may reasonably enough be expected.

Such is the state of the British Nautical Almanac and Astronomical Ephemeris at the present moment; it neither supplies the wants of the Seaman\*, nor those of the Astronomer†: it is a miserable production. And that it is such, after the repeated representations of persons who have no interest in unjustly depreciating its character, or no

either make the computations, or examine them. The method pursued was, the Astronomer Royal made the observations; he furnished them to persons called computers, who performed the office imported by their name; and the computations then passed through the hands of a man called a comparer. It is this last individual who ought to be responsible for whatever imperfections might be found in the Almanac. But he was a person not recognized by the Acts; his office was not legally known; hence it followed that ERRORS ABOUNDED, IN WHAT OUGHT TO BE ESPECIALLY, AND ABOVE ALL OTHER PRODUCTIONS, VOID OF ERROR."

\* As an instance of this, I will mention the fact that Captain Smyth, while employed on his Survey in the Mediterranean, at the expense of the British Government, discarded the British Nautical Almanac altogether, and applied to Foreign Ephemerides for all his wants!!!

† As an Astronomer, I can only say, so little do I regard the Nautical Almanac, I should care not one straw were I to-morrow morning to hear that the volume just published was to terminate the series. Scarcely does a week pass, without its furnishing some flagrant instance of Theoretical or Practical Imbecility.—Of the former, I have mentioned several instances; of the latter, a specimen may be obtained of no more ancient date than Friday last, when we were informed that a star of the 6th magnitude suffered visible occultation by the Moon, between 1 and 2 P.M., although the star preceded the Sun only one hour and twenty-five minutes, and was only seven degrees to the north of him.

inducement to sue for alterations which would not be improvements, is indeed to every Friend of Science matter of serious regret. The Royal Society's Council, when the Illustrious Davy was their President, some years ago attempted to procure some amendment of it; but (as has been observed by Mr. Baily in his letter to *The Times* of Nov. 18th) "some invisible and Bœotian influence always paralysed their efforts whenever they met to discuss these matters." The Astronomical Society's Council have hitherto (prudently as I think) kept aloof: although no "*subordinate Society*," it has no reason to suppose that its wishes would be acceded to, till there be a change, not of measures only, but of men. Had however the Government possessed as much interest in the character of the publication as they have shown indifference to it, by allowing the continuation of the same jog-trot stuff that degraded it, when under the directions of the late Board of Longitude, much trouble would have been saved, these strictures would have been uncalled for, and that would have been our glory which is now our shame.

Having thus examined my adversary's "few facts," and placed them in their proper light, though probably in a very different one from that which he intended, it only remains that I should produce some statements to which he has not alluded, but which will be illustrative of the accuracy of the sentiments I have expressed, as to the paternal care which the Government exercises over the interests of Astronomy.

By the late Act of Parliament, the Board of Longitude was, among others, composed of the President and three Fellows of the Royal Society, who receiving no annual pay, were not liable to annual removal by the Board of Admiralty. During the Presidency of Sir Humphry Davy, the Royal Society's non-stipendiary members of the Board were, Sir Humphry Davy, Lord Colchester, Davies Gilbert, Esq. and Dr. Wollaston. On Sir Humphry's much-to-be-lamented retirement from the Chair, Davies Gilbert, Esq. was called to it; and took his seat at the Board of Longitude, as being the President of the Royal Society. Some months were suffered quietly to elapse after his appointment, in order to see how far it was or was not intended to fill up the vacant place: finding, however, not a syllable uttered by those holding high seats in the synagogue, silence was at length broken by an independent Member of the Council of the Royal Society, stating that there was a vacancy in the Board of Longitude, and asking when it was likely it would be filled up? To this it was instantly replied, that there was no vacancy: and the majority of the Council agreeing with their President, that the President and two Fellows were precisely the same in Parliamentary arithmetic as the President and three Fellows, the independent Member became dumb. That which the Council of the Royal Society declared to be right, the Government did not vote to be wrong; and from the 30th of November, 1827, to the day of the Board's of Longitude dissolution, it was allowed to



remain the Board of Longitude of Great Britain, *minus* one of the Body by law considered necessary to its constitution; and therefore was no Board of Longitude at all.

During the last spring, a letter was addressed to the Scientific Representatives of the Government, in which an individual, after impressing upon them the lamentable state of practical Astronomy in this country, offered to observe every one of Struve's Catalogue of double and multiple Stars, free of any expense to the Government, provided the Government would procure the instrument of observation. The period named for the completion of the almost Herculean task was five years; when the instrument having performed its labours here was to be at the disposal of Government for like work in the Southern Hemisphere. The proposal was rejected.

As to the dissolution of the Board of Longitude, it is a subject easily disposed of; whether the Learned Board did or did not do its duty to the country, the Government did not inquire. I took the liberty of proposing to the Chairman of the Committee of Finance, as evidence to be examined for the Board, that of Colonel Colby, Mr. Herschel, Captain Kater, and Doctor Wollaston;—against the Board, that of Mr. Baily, Captain Beaufort, Captain Heywood, Captain Smyth, and myself. The testimony, however, of Messrs. Croker and Barrow, whose Astronomical labours, while officiating Presidents of the Board, so much enlightened Astronomical Europe, was deemed all-sufficient; and in

a House of Commons, composed of five Members\*, (tell it not in Gath) the Bill for dissolving the Board of Longitude of Great Britain was carried

\* The Speaker, John W. Croker, F.R.S., Sir G. Clerk, F.R.S., Davies Gilbert, P.R.S. and Henry Warburton, F.R.S.!!! As the debate on the occasion was peculiarly interesting, and as the *Eloquence* of the ROYAL SOCIETY FELLOWS, will be remembered long after the speeches of PITT and FOX, are forgotten, I shall present it to my readers, knowing that there are many on this side of Dover who have not read it; as also many on the other side who wish to read it.

“ Mr. Croker moved the order of the day, for the third reading of the Longitude Acts Repeal Bill.

“ Mr. D. Gilbert, not having hitherto had an opportunity of speaking on this bill, said, He should now bear testimony to the uniformly creditable conduct of the Board of Longitude. It was not his intention to oppose the bill, as it had been brought into the House on the recommendation of the Finance Committee; but he wished it to be clearly understood, that the Board was not abolished for any demerits of its own. The measure was adopted in compliance with a due regard for œconomy, and he was one of those who had always considered the services of the Board as eminently useful to the interests of Science.

“ Mr. Warburton, in confirmation of the honourable gentleman’s opinion, stated, that this body had been instrumental on various occasions in promoting scientific discoveries connected with the Navy. Under their auspices Captain Foster was sent out with a frigate, furnished with fifteen chronometers, in order to determine the exact longitude of the Island of Madeira. On that occasion he ascertained that there was the difference of one-tenth of a second, between the actual longitude and the longitude as formerly supposed. He hoped that the same exertions would be still used, while a single point which our navy might touch upon remain undetermined. The system of sending out chronometers, had been recommended by this Board, to the Board of Admiralty, and he presumed, that they would continue to avail themselves of so valuable an invention. The honourable mem-

by the same individual who in the Session of 1818 introduced the Bill for its establishment.

The next and last allusion I shall make, is to the Observatory at Kew: here are two Astronomers, a Keeper of the Observatory, and a Chamber Keeper. One of the Astronomers receives from the public purse 350*l.* a year, the other 250*l.*; the Keeper of the Observatory is paid 150*l.* a year, and the Chamber Keeper 26*l.* a year. Now let me ask, What are the equivalents which the public has received for this annual expenditure of 776*l.*? I declare I know not; and therefore do I call upon those who ought, to name, if they can, one single astronomical observation which has emanated from this observatory. But this is not all; one of the Astronomers of Kew is also the Astronomer at Oxford!!! It is needless to proceed further. Let her concluded by expressing his hope, that the Board of Admiralty would, in future, have recourse to the Royal Society for the purpose of receiving their assistance and beneficial co-operation in nautical scientific discoveries.

“ Mr. Croker said, that the Board of Admiralty had much more connexion with chronometers than the Board of Longitude. The Bill was NOT introduced with a view merely to œconomy. It would, indeed, cause a saving to the country of perhaps 2000*l.* per annum, but that was not the sole object. It was long since ascertained, that the Board of Longitude was of no use whatever. It met only four times a-year, and was then wholly occupied in reading the wild ravings of madmen, who fancied they had discovered perpetual motion and such like chimeras, stimulated with expectation of obtaining parliamentary rewards, held out for the encouragement of inventions, which every man of science knew to be perfectly ridiculous.”—Vide *Times*, July 5, 1828.

The Bill was then read a third time, and passed.

The House adjourned at a quarter past 2.



us, therefore, recapitulate the facts we have already demonstrated, and we shall find—

That the British Government gives the Astronomer Royal 600*l.* a year, and a miserable hovel to live in, without any retiring pension, or any pension to his widow, in case she survives him—That it keeps the four junior Assistants of the Royal Observatory, notwithstanding repeated remonstrances from the visitors of the Royal Observatory, and the President and Council of the Royal Society, in a state approaching to starvation—That it spends upon an Observatory at the Cape of Good Hope upwards of 20,000*l.*; and at the end of seven years, doubts if the Observatory be established or not—That it neglects the Cape Astronomer; whilst Sir Thomas Brisbane, and his assistant Dunlop, collect and bring home, at their private expense, observations which may be justly considered the cream of Southern Astronomy—That it casts about for an excuse to have nothing to do with the maintenance of the Paramatta Observatory—That it suffers the Trigonometrical Survey, began under the auspices and personal inspection of George the Third, to languish for want of funds—That it sees the British Monarch liberally giving out of his privy purse 2000*l.* for the purchase of Astronomical instruments, without endeavouring to secure from them permanent benefit to Astronomical Science—That it suffers the Nautical Almanac to continue\* a disgrace to the country, notwithstanding—

\* The Act of Parliament which dissolved the late Board of Longitude, empowers the Admiralty to continue the “ publica-

ing the enormous sums which are from year to year expended on it\*—That it allows a Board of

tion" of the Nautical Almanac ; it is however remarkable, that the *correct* publication of it is unprovided for ; whether the late learned Secretary has had the influence to procure the omission of the word " correct" to qualify himself for the Superintendent's place, as on a former occasion he is said to have qualified himself for the Secretary's place, by ingeniously getting a clause introduced in the act, whereby the care and regulation of the Admiralty's Chronometers were separated from the duties of the Secretary of the Board, of which, till then, they had ever formed a part, I pretend not to know. I will however tell him, and the Admiralty also, that could they have polled every unpaid astronomical man in the country, such has been his persevering obstinacy in opposing the wishes of those who follow astronomy for astronomy's sake, and do not fatten upon it, at the expense of others, I very much doubt, if his re-appointment to the post he now occupies, would have been supported by a single vote. For his various acquirements I entertain considerable respect ; as a man I regard him ; toward him personally, I disclaim every unfriendly feeling ; but with pain do I declare, that such is my conviction of the obstacles which he *has* presented, and (if permitted) ever *will* present, to the promotion of Astronomical knowledge, that were I called upon to exhibit additional evidence of the indifference of the Government, to the interests of Astronomy, it would be, their having confided the superintendence of the Nautical Almanac to the care of DR. THOMAS YOUNG.

\* Let us have a Parliamentary investigation on this subject, and it will be found, that instead of the present enormous sum spent on the Nautical Almanac, not one shilling need be taken from the public purse ; for if there were no jobs, no pickings for the employés, reviewers, and publishers, of certain public bodies, the profits upon the sale of 8000 copies of the Almanac would far more than pay for the computation of all that is required.

Since the above note was written, I understand that the sale has materially declined, a few more than 6000 *only* having been sold

Longitude to assemble as such, notwithstanding it is not the Board of Longitude as by Parliament constituted—That it encourages not Astronomical Investigation purely of British origin, when no other expense than the purchase of an instrument is needed—That it dissolves the Board of Longitude upon the evidence of persons perfectly ignorant of Astronomical matters, instead of correcting its defective constitution, and compelling its members to do their duty — That it expends seven hundred and seventy-six pounds per annum for observations made at Kew, which, astronomically considered, are not worth the thousandth part of as many farthings. And lastly, that it suffers the Radcliffe Observer at Oxford to be also the Observer at Kew!!!

Let us now see how the matter stands between me and my anonymous accuser. To having written a “ querulous paragraph ” in *The Times* of Nov. 5th, as to the state of Astronomy in this country, I most unhesitatingly plead Guilty. I wrote as I felt, and as every warm-hearted Englishman ought to feel, when he finds that the Astronomical laurels planted on Britain’s brow, by her Halley, her Bradley, her Herschel, and her Newton, are carried off by foreigners, without even a struggle being made on the part of the British Government to preserve them.

during the last year. Let but any respectable body publish an Almanac à la Encke, and it will be purchased by every one; whilst, in return for exemption from stamp duty, (which the Nautical Almanac exclusively enjoys,) it will have the enviable honour of being sold at three-pence a pound, instead of five shillings a volume.



But as to the other part of the charge, I see no reason to retract one iota of what I published; and if the assertions I have made be facts, few I hope will be found to think, that I cast on the British Government unmerited “reproach,” when in my letter to *The Times* of Nov. 5th, I accused it of “SHOWING INDIFFERENCE, ALMOST BARBARIAN, TO ASTRONOMICAL SCIENCE.”

From the style in which I have written, some who know me not, will perhaps suspect that feelings, other than of a scientific order, have actuated me; and that under the mask of advocating our Astronomical interests, I have been forward to attack the Government of my country.—Knowing, however, how powerfully political sentiments operate in biassing the minds of individuals, by birth and station far superior to me, I should be sorry that any argument which may have been here advanced, purely to serve Astronomical Science, should lose any of its weight, by a suspicion that political hostility had influenced my pen. Except in matters which concern Science, no man in His Majesty’s dominions more respects the present Government than myself: in Politics I am, and ever have been, a Tory; in Science, I am, and ever will be, a Republican.

I have the honour to be, Sir,

Your obliged Servant,

J. SOUTH.

Observatory, Kensington, Dec. 10, 1828.